Portland Harbor

COMMUNITY INVOLVEMENT PLAN

February 2002

COMMUNITY INVOLVEMENT HELPS SHAPE CLEANUP DECISIONS

A healthy environment and a thriving commercial harbor are important to Portland citizens, Oregon residents, and people from other states. However, the sediments of Portland Harbor are currently contaminated with pesticides, heavy metals, and other hazardous substances from a century of historical industrial operations.

Over the next several years the Environmental Protection Agency (EPA) and the Oregon Department of Environmental Quality (DEQ) will be investigating, planning for cleanup and cleaning up contamination and sources at the Portland Harbor Superfund Site. Both agencies must learn about the needs and priorities of the community in order to incorporate them into the cleanup decisions that will ultimately affect future use of the harbor.

This community involvement plan outlines how the EPA and DEQ plan to involve community members in the investigation and cleanup of the Portland Harbor Superfund Site. DEQ conducted significant public outreach between 1998 and 2000, with a series of community interviews, presentations and public meetings. The EPA and DEQ will continue to build on these efforts, and welcome your ideas.

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ABOUT PORTLAND HARBOR

Portland Harbor is within the final reach of the Willamette River upstream of where it joins the Columbia River. The working Portland waterfront is heavily industrialized and is zoned primarily for commercial and industrial use. Although there is some residential development within the Portland Harbor site area, this area is likely to remain a working harbor.

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Portland Harbor is one of the busiest seaports on the Pacific Coast. Since the mid-1800's, the shoreline of the Harbor has been consistently altered to accommodate urban development and a growing shipping industry. Before industrial development, this part of the River was an important natural resource for the region's Tribal populations, as well as a traditional ceremonial and cultural resource.

In addition to industrial activities, there are other important uses that benefit the region. Recreational and subsistence fishing takes place in the Harbor and both up and downstream. Tribal fishing for both subsistence and ceremonial purposes continues to be a key activity. Swimming, and boating are other uses that bring people into contact with Portland Harbor.

Recent studies identified many fish and wildlife species using Portland Harbor and the Willamette River as a migratory pathway, including threatened and endangered runs of salmon. Fish-eating birds, migratory waterfowl, and raptors are seen seasonally in the lower Willamette River and Spring Chinook support sport and recreational fishing.

In December 2000, EPA added Portland Harbor to the National Priorities List based on the results of a 1997 sediment sampling study. The list identifies the nation's most contaminated sites. The hazardous substances currently found in Willamette River sediments and along the river banks are known to be harmful to humans, fish and wildlife, and may pose threats to humans, fish and wildlife in contact with Portland Harbor. EPA's work will evaluate the risks posed by these contaminated sediments.

For several years prior to the listing, DEQ was already engaged in cleaning up sources of contamination at industrial sites along the banks of the river. Additional information on Portland Harbor before it was listed on the NPL can be found in Appendix C: Project Overview and Appendix D: History of Cleanup Activity.

For additional background, see Appendix H for fact sheets about Portland Harbor.

WHO TO CONTACT ABOUT COMMUNITY INVOLVEMENT

This public involvement plan is designed to be flexible. It reflects our current knowledge about the community and its concerns, but it will need to be revised if those conditions change. This plan is intended to be a working document, changing as community concerns emerge and more information becomes available.

Questions, comments and requests can be directed to:

Judy Smith, EPA
Community Involvement Coordinator
1200 Sixth Avenue Mail stop: ECO-081
Seattle, WA 98101
206-553-6246
1-800-424-4372 Ext. 6246
smith.judy@epa.gov

Kim Cox, DEQ
Project Coordinator
2020 SW 4th Avenue
Portland, OR 97204
503-229-6590
cox.kim@deq.state.or.us
1-800-452-4011

To ensure effective communication with everyone, additional services can be make available to persons with disabilities by contacting one of the representatives listed above.

WHAT WE HAVE HEARD SO FAR

Community interest in Portland Harbor is high, due to cleanup activities at individual sites and other water quality issues on the Willamette River, such as combined sewer overflows. Public awareness of waterway contamination has also been heightened by conditions in the Columbia Slough, an 18-mile waterway that extends through Portland and enters the Willamette River, which contains pollution from industry, transportation uses, and development.

The Oregon Department of Environmental Quality laid a solid and extensive groundwork of gathering community concerns and sharing information in a series of meetings and community interviews in 1999 and 2000. In 2001, EPA and DEQ project managers and community involvement coordinators continued to gather information about community concerns.

Here is a brief summary of some major issues and concerns shared with EPA and DEQ to date:

- Cleanup should be coordinated with efforts to prevent re-contamination of the harbor.
- Should dredging be used as a method to clean up contamination in the harbor?
- Where and how should contaminated sediments be disposed of?
- Continued economic viability of Portland Harbor should be a priority.
- Will businesses be able to continue to operate during and after the cleanup?
- How will people know that the fish in the harbor are safe to eat?
- Will the involvement of different government agencies and tribal governments slow down the investigation and cleanup?
- How will unsafe conditions be posted and advertised?
- How do contaminated sediments affect water quality?
- How much contamination is there; how far does it extend?

OBJECTIVES

Five community involvement objectives are identified in this plan, and a series of activities are proposed to help EPA and DEQ meet these objectives. As the investigation and cleanup of Portland Harbor proceeds, the agencies will evaluate which activities meet the needs of the public. At any time, if members of the community identify a specific activity or tool that can aid their participation in the cleanup process, let EPA and DEQ know! Community involvement can help project managers shape good decisions that will both meet the needs of the community and satisfy legal and regulatory environmental requirements.

The objectives of this community involvement plan are to:

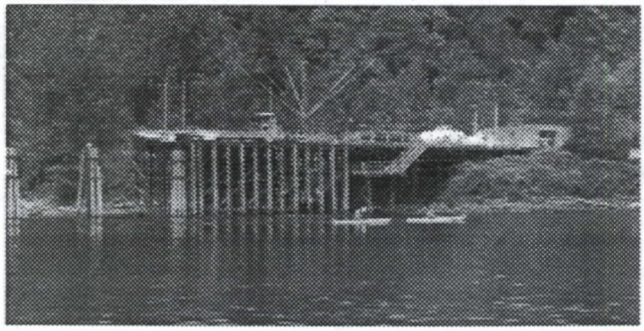
1. **Provide opportunities for public participation that will effectively incorporate community concerns into cleanup decisions.**

2. **Provide consistent, regular and timely information about the investigation and cleanup plans and activities for Portland Harbor sediments and upland sites.**

3. **Identify affected communities and key stakeholders and establish regular and open dialogue to respond to questions, concerns and conflicts as they arise.**

4. **Meet statutory requirements regarding public notice and opportunities for public involvement.**

5. **Evaluate the effectiveness of this community involvement plan and make changes as needed.**



PUBLIC INVOLVEMENT STRATEGY

The following section identifies public outreach activities that may be used to help EPA and DEQ satisfy the goals of this plan. The audience for these efforts will include those who are:

- Affected by environmental impacts or cleanup work in Portland Harbor
- Involved in site investigation activities or cleanup activities along the Harbor; and
- Interested in cleanup work in the Harbor or are interested in issues related to the Willamette River

Members of the community have told us that many of these public involvement tools would be helpful for keeping them informed or involved. This list is organized by the objectives stated earlier in this plan. Many activities may contribute towards meeting more than one objective. Again, these are options both the agencies and the community can consider as the cleanup proceeds.

1. Provide opportunities for public participation that will effectively incorporate community concerns into the decision making process.

Public review of documents: The process of investigating, planning for cleanup and cleaning up contamination in Portland Harbor will be open to the public. Draft reports, work plans and sampling results will be generated during the Remedial Investigation and Feasibility Study. These documents will be available for public review after the project team has reviewed them for accuracy and completeness. Documents will be posted on the EPA Portland Harbor web site, and they will be available upon request from EPA. Appendix G: Glossary and Appendix F: Acronyms are provided for your use while reading these documents.

Comments received outside of formal public comment periods will be shared with project managers and the project team, and will be part of the administrative record but individuals will not receive a written response from EPA. Comments and issues may be shared in fact summary sheets.

Technical Assistance: A Technical Assistance Grant provides funds for independent technical review and interpretation of project information for the community. EPA advertised the availability of this grant in December 2000 and it was awarded to Willamette Riverkeeper in August 2001. Willamette Riverkeeper is a non-profit organization dedicated to the purpose of "working to make the Willamette River watershed healthy for fish and wildlife and safe for fishing and swimming, forever and for all." To contact Willamette Riverkeeper, call 503-223-6418.

Informal communication: Project managers and community involvement coordinators are always willing to meet with stakeholders and community members to discuss new developments on the investigation and cleanup, as well as to keep up-to-date on community issues and concerns.

Citizens Advisory Groups: EPA and DEQ community involvement coordinators will assist community members if they desire to form a Citizens Advisory Group to provide a conduit for information between project managers and the community. Such a group would need to represent a wide spectrum of community interests in order to be effective.

Feedback: Judy Smith, EPA, and Kim Cox, DEQ, are the project's Community Involvement Coordinators, and are available to talk with anyone who has concerns or questions about the Portland Harbor investigation and cleanup. Both Judy and Kim will share the information they gather with the project management team.

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2. Provide consistent, regular and timely information about the investigation and cleanup plans and activities for Portland Harbor sediments and upland sites.

Fact Sheets: EPA and DEQ will issue periodic fact sheets about cleanup activities, significant milestones in the investigation, technical information, and project findings. The fact sheets will be mailed to the Portland Harbor mailing list, and be posted on the EPA and DEQ Portland Harbor Web pages.

Articles: Articles will be periodically submitted to trade publications and local newspapers.

Meetings: Project managers and community involvement coordinators are available to attend regularly scheduled meetings of community groups and neighborhood associations upon request.

Availability Sessions: Project managers and community involvement coordinators will consider whether there is community interest in holding open houses and workshops to make information widely available at significant milestones in the investigation and cleanup process.

Project Mailing List: EPA and DEQ will maintain and regularly update their respective Portland Harbor mailing lists to make sure stakeholders and neighbors receive information about the site. To get on the mailing list, send a request by e-mail, phone or mail to EPA or DEQ contacts listed on page 2. As of January 2002, there were approximately 900 people and organizations on the project mailing list.

Information Repositories: EPA will establish sites within the community where people can review project documents. Information repositories will be maintained at the Multnomah County Library and St. Johns Library. Information may also be requested from DEQ and EPA offices.

News Releases: Significant project news and milestones will be shared with the Portland metropolitan area through mass media outlets.

Web Sites: The EPA and DEQ will maintain project web sites where most publicly available information about the project can be viewed. There are two ways to access the EPA Portland Harbor web site. One way is to type: http://yosemite.epa.gov/r10/cleanup.nsf/sites/ptldharbor. You can also type: www.epa.gov/r10earth/, click on Index, then select P and Portland Harbor. To view DEQ's website go to www.deq.state.or.us/nwr/ph/.

Partnerships: EPA and DEQ Community Involvement Coordinators will support the efforts of community partners to share project information where appropriate.

Environmental Education: EPA and DEQ will work cooperatively with environmental education staff from the city of Portland, Bureau of Environmental Services to develop curriculum materials about the Portland Harbor Superfund site to share with local schools.

3. Identify affected communities and key stakeholders and establish regular and open dialogue in order to respond to questions, concerns and conflicts as they arise.

Community Interviews: Twenty-five community interviews were conducted by DEQ in the fall of 1999. EPA and DEQ conducted six additional interviews in July 2001. Additional interviews will be conducted as planning for the Remedial Investigation and Feasibility Study continues.

Stakeholder Dialogue: EPA will host a series of small group discussions to hear issues and concerns about the Portland Harbor cleanup.

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Outreach to targeted populations: Portland has a well-developed network of neighborhood associations including several adjacent to the Portland Harbor site who have expressed willingness to share information between the agencies and the community. In addition to measures outlined elsewhere in this document, special efforts may be taken to reach the following parts of the affected Community.

Subsistence anglers: Work with community groups and agencies to communicate with subsistence fishing populations who may be at additional risk.

Recreational users: Develop messages and determine locations for informational signing in locations such as boat launches and community parks. Have interagency information booths or displays at boat and fishing shows and other local events.

Non-English speaking: EPA will translate information into other languages if there is sufficient need and interest.

Tribal populations: EPA and DEQ will work with each Tribal government on the Portland Harbor team to identify the specific information and education needs of Tribal members.

4. Meet statutory requirements regarding public notice and opportunities for public involvement.

EPA Project managers and community involvement coordinators will make sure all legal requirements for public involvement in the investigation and cleanup process for the Portland Harbor process will be met or exceeded. A list of required and recommended activities is contained in Appendix A1 of this plan.

5. Evaluate the effectiveness of this community involvement plan and make changes accordingly.

EPA and DEQ will elicit feedback on our public outreach program through surveys and comments received by e-mail and phone. The Community Involvement Plan will be updated when needed to incorporate feedback received.

HOW THE PROJECT WILL BE MANAGED

The work done by EPA and DEQ in Portland Harbor will be governed by applicable laws, including the comprehensive Environmental Response, Compensation and Liability Act (CERCLA), the State of Oregon's Environmental Cleanup Law (Oregon Revised Statutes 465-200 et. seq.), the Clean Water Act, the Endangered Species Act and other applicable laws and regulations.

The EPA and DEQ will manage the investigation and cleanup of Portland Harbor jointly. EPA is the lead agency for the in-water portion of the site, and DEQ is the lead agency for upland sources of contamination. DEQ will also be responsible for coordinating the Portland Harbor work with other state and local efforts such as the Governor's Oregon Plan and the City of Portland Combined Sewer Overflow (CSO) project.

EPA and DEQ are part of a larger inter-governmental coordination team that includes the National Oceanic and Atmospheric Administration, the Oregon Department of Fish and Wildlife, the U.S. Department of the Interior, the Confederated Tribes and Bands of the Yakama Nation, the Confederated Tribes of the Grand Ronde Community of Oregon, the Confederated Tribes of Siletz Indians, the Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes of the Warm Springs Reservation of Oregon, and the Nez Perce Tribe.

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These six Tribal governments are involved in the Portland Harbor work because of:

- treaty rights that provide access to the river's resources;
- use of the area for fishing and cultural purposes;
- importance of fish and lamprey eel for sustenance and ceremonial purposes; and
- their roles as natural resource trustees charged with protection of fish and wildlife.

The relationship and responsibilities of this project management team are established in a Memorandum of Understanding (MOU) dated February 8, 2001. The MOU is available at the EPA and DEQ web sites or upon request from EPA or DEQ.

This plan will be a basis for providing information to affected tribal community members, and both EPA and DEQ will be working with the Tribal members of the intergovernmental project team to identify any specific needs of Tribal members. However, Both EPA and DEQ have obligations to consult with Tribal governments on a government–to-government basis, and EPA has a trust responsibility to the Tribes as a federal agency. Community outreach activities are separate from trustee responsibilities and consultation between governments.

EPA and DEQ project managers and staff will routinely brief local, state and federal legislators about progress on the Portland Harbor investigation and cleanup. These briefings will provide a way for information about the project to be shared with the legislator's constituents. In return, legislators will be able to convey emerging concerns of their constituents back to EPA and DEQ.

WHAT'S NEXT IN THE CLEANUP PROCESS

In September 2001, EPA finished negotiating a legal agreement called an Administrative Order on Consent with members of the Lower Willamette Group, a coalition of Portland Harbor businesses and public agencies who agreed to perform in the investigation and study of the Portland Harbor Superfund site. During the first part of 2002, EPA will be working with these potentially responsible parties to develop a work plan for the in-water remedial investigation and feasibility study (RI/FS). An RI/FS allows the agency to establish where the contamination is, what kinds of contamination are threatening the harbor and how much contamination is present. A risk assessment will determine if contaminated sediments pose a risk to humans, fish, wildlife and plants. Once this important information is gathered, the EPA can begin designing a range of appropriate actions for cleaning up these contaminants.

DEQ continues investigating and cleanup at upland sites near the Portland Harbor. Most importantly, DEQ, working with EPA, will determine if the contamination at these sites is moving towards the river and the sediments. The cleanup at these sites is known as "source control." DEQ will be controlling the source of contamination to the river. DEQ has individual agreements with over 40 sites along the Harbor, and companies and businesses are working with the state to cleanup the sites. Visit DEQ's website for details on upland sites. Controlling sources of contamination will prevent recontamination of the sediments. DEQ's cleanup law requires a public notice be published in local newspapers when decisions on a cleanup remedy are made. However, because of the high level of interest in the Harbor, DEQ will provide additional ongoing information as these cleanups progress.

SIX-MONTH ACTION PLAN

This section of the community involvement plan outlines a schedule of public involvement and information-sharing activities scheduled in the next six months. This action plan will be updated frequently as specific information about activities and timeframes are identified, and as we receive feedback from the community.

January 2002
- EPA and DEQ participate in Community Forum sponsored by Willamette Riverkeeper

February 2002
- Fact Sheet: documents and information available during the next six months.
- Community Involvement Plan released
- Fact sheet: Draft Risk Assessment Scoping Memo and Conceptual Site Model
- Share information about Community Advisory Groups with interested citizens

March 2002
- Fact Sheet: Introduce project team members and trustees, EPA Customer Service survey
- Major mailing list update
- Small group discussions to talk about issues and concerns

April/May 2002
- Fact Sheet: Share information about Round 1 Work Plan
- Public meetings and availability sessions: how to view and interpret Work Plan

July 2002
- Update Community Involvement Plan

To be scheduled / or as needed
- Update EPA website
- Update DEQ website
- Fact sheets or neighborhood meetings to share key decisions on upland site cleanup
- Work cooperatively with city to develop Portland Harbor Superfund curriculum for local schools
- Work with Environmental Justice Action Group and Immigrant and Refuge Organization to make sure information about fish consumption is shared with affected communities

last updated Feb 7, 2002

Appendix A:
Required Community Involvement Activities at Superfund Sites

The activities proposed in this Community Involvement Plan for Portland Harbor include public involvement requirements that have been established by law or regulation for all superfund sites.

The information in this appendix has been included as a helpful reference. The citation at the end of each paragraph uses the following abbreviations:

NCP: National Contingency Plan
CERCLA: Comprehensive Environmental Response Compensation and Liability Act (Superfund)
CFR: Code of Federal Regulations

The numbers and letters in parentheses indicate the chapter, section and paragraph where this information originates. Copies of these laws and regulations can be requested from any Environmental Protection Agency office.

When a site is added to the NPL:

When the Proposed Rule is released, EPA must publish the proposed rule in the *Federal Register* and seek public comments through a formal public comment period. NCP 40 C.F.R. 300.425(d)(5)(i)

When the Final Rule is released, EPA must publish the final rule in the *Federal Register* and respond to significant comments and significant new data submitted during the comment period in a Responsiveness Summary. NCP 40 C.F.R. 300.425(d)(5)(i)

Prior to Remedial Investigation (RI):

Prior to the start of the remedial investigation, the lead agency must conduct **community interviews** with local officials, public interest groups, and community members to solicit their concerns and information needs and to learn how and when people would like to be involved in the Superfund process. (NCP 40 C.F.R. 300.430(c)(2)(i)

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Your Thoughts

Use this space to make notes of the issues and concerns you want to share with EPA and DEQ:

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Before commencing field work for the remedial investigation, the lead agency must develop and approve a complete **Community Involvement Plan** based on community interviews and other relevant information, specifying the community involvement activities that the lead agency expects to undertake during the remedial response. (NCP 40 C.F.R. 300.430(c)(2)(ii)

Before the start of the remedial investigation, the lead agency must establish at least one information repository at or near the location of the response action. Each information repository should contain a copy of items developed, received, published or made available to the public including information that describes the Technical Assistance Grant application process. The lead agency must make these items available for public inspection and copying and must inform interested citizens of the establishment of the information repository. CERCLA 117(d); NCP 40 C.F.R. 300.430(c)(2)(iii)

Prior to the start of the remedial investigation, the lead agency must inform the public of the availability of Technical Assistance Grants and include in the information repository material that describes the technical assistance grant application process. NCP 40 C.F.R. 300.430(c)(2)(iv)

As the Remedial Investigation Begins:

As the RI begins, the lead agency must establish an administrative record, make it available for public inspection, and publish a notice of its availability. The lead agency must comply with the public participation procedures required in 300.430(f)(3) and shall document such compliance in the administrative record. CERCLA 113(k); NCP 40 C.F.R. 300.815(a-c)

When the Administrative Record is established, the lead agency must publish a notice of availability of the administrative record in a major local newspaper of general circulation. NCP 40 C.F.R. 300.815(a)

When the Feasibility Study (FS) and Proposed Plan is Completed:

When the RI/FS and Proposed Plan are done, the lead agency must publish a notice of the availability of the RI/FS and Proposed Plan, including a brief analysis of the Proposed Plan, in a major local newspaper of general circulation. The notice also must announce a comment period. CERCLA 117(a) and (d); NCP 40 C.F.R. 300.430(f)(3)(i)(a)

After the RI/FS and Proposed Plan are released, the lead agency must provide at least 30 days for the submission of written and oral comments on the Proposed Plan and supporting information located in the information repository, including the RI/FS. This comment period will be extended by a minimum of 30 additional days upon timely request. CERCLA 113(k); NCP 40 C.F.R. 300.430(f)(3)(c)

During the public comment period following the release of the proposed plan, the lead agency must provide an opportunity for a public meeting regarding the Proposed Plan and supporting information to be held at or near the site during the comment period. CERCLA 113 and 117(b); NCP 40 C.F.R. 300.430(f)(3)(i)(D)

Following the public meeting to solicit public comments, the lead agency must have a court reporter prepare a meeting transcript that is made available to the pubic. CERCLA 117(a)(2); NCP 40 C.F.R. 300.430(f)(3)(i)(E)

Before settlement for remedial action, such as enforcement agreements and consent decrees, become final, a notice of the proposed settlement must be published in the *Federal Register* for at least 30 days. This notice must state the name of the facility and the parties to the proposed agreement. Those persons who are not parties to the agreement must be provided an opportunity to file written comments for a period of 30 days. CERCLA 122; NCP 40 C.F.R. 300.430(c)(5)(i) and (ii)

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Pre-Record of Decision Significant Changes:

If there are significant changes to the proposed plan, the lead agency must prepare a response to significant comments, criticisms, and new data submitted on the Proposed Plan and RI/FS, and ensure that this response document accompanies the Record of Decision (ROD). CERCLA 113 and 117(b); NCP 40 C.F.R. 300.430(f)(3)(i)(F)

If there are significant changes to the proposed plan, the lead agency must include in the ROD a discussion of significant changes and the reasons for such changes, if new information is made available that significantly changes the basic features of the remedy and the lead agency determines that the changes could be reasonably anticipated by the public. NCP 40 C.F.R. 300.430(f)(3)(ii)(A)

Upon the lead agencies' determination that significant changes to the proposed plan could not have been reasonably anticipated by the public, the Agency must issue a revised Proposed Plan that includes a discussion of the significant changes and the reasons for such changes. The Agency must seek additional public comment on the revised Proposed Plan. NCP 40 C.F.R. 300.430(f)(3)(ii)(B)

After the Record of Decision is Signed:

After the Record of Decision is finished, the lead agency must make the ROD available for public inspection and copying at or near the site prior to the commencement of any remedial action. Also, the lead agency must publish a notice of the ROD's availability in a major local newspaper of general circulation. The notice must state the basis and purpose of the selected action. NCP 40 C.F.R. 300.430(f)(6)

Prior to the remedial design, the lead agency should revise the Community Involvement Plan, if needed, to reflect community concerns discovered during interviews and other activities, that pertain to the remedial design and construction phase. NCP 40 C.F.R. 300.435(c)(1)

Post-Record of Decision Significant Changes:

If an Explanation of Significant Differences is needed following the Record of Decision, the lead agency must publish a notice that briefly summarizes the explanation of significant differences (ESD) and the reasons for such differences in a major local newspaper, and make the explanation of significant differences and supporting information available to the public in the administrative record and information repository. NCP 40 C.F.R. 300.435(c)(2)(i) (A) and (B)

If an Amendment to the Record of Decision is needed, the lead agency must propose an amendment to the ROD and issue a notice of the proposed amendment in a major local newspaper of general circulation. NCP 40 C.F.R. 300.435(c)(2)(ii)(A)

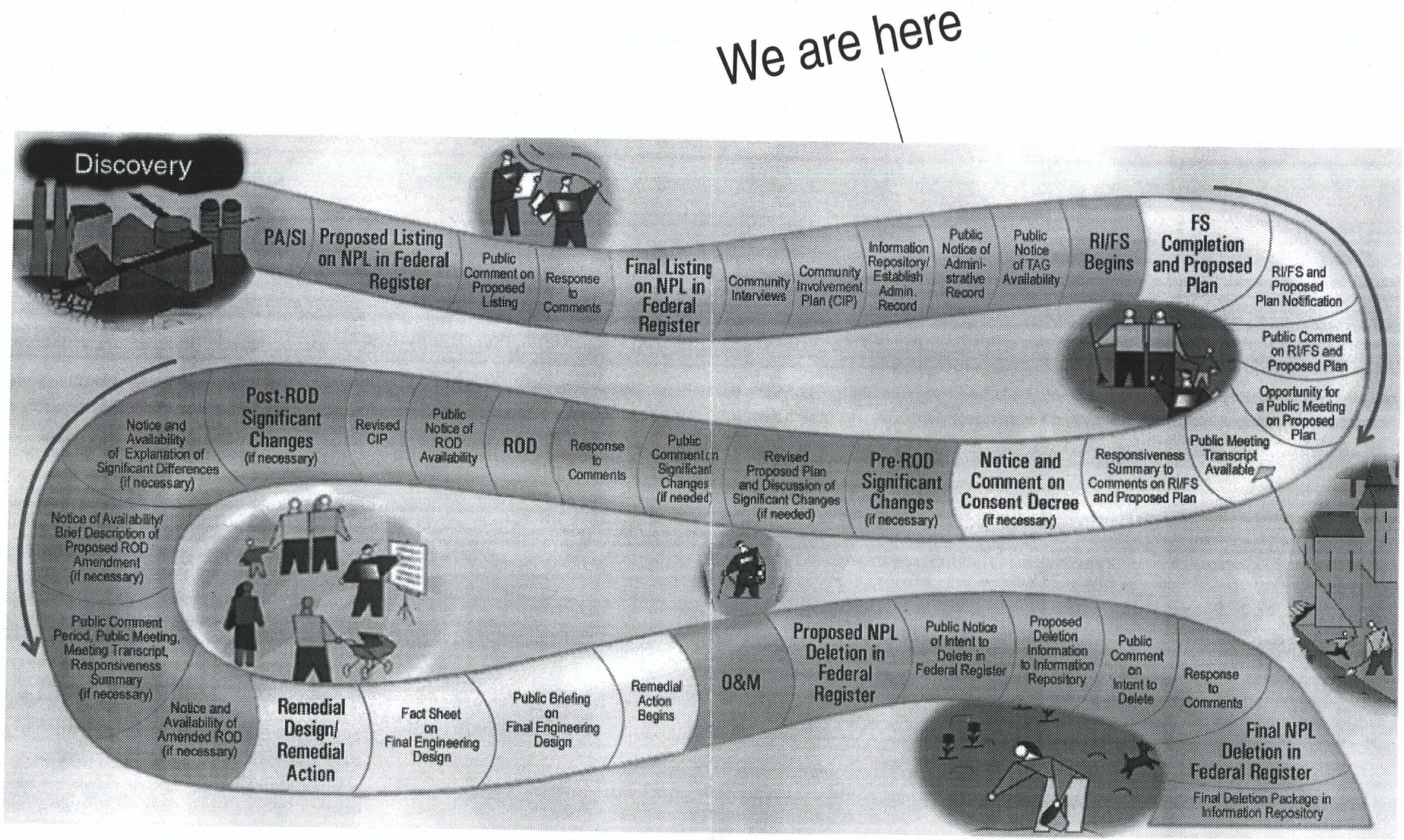
For a Record of Decision Amendment, the lead agency must follow the same procedures for notice and comment as those required for completion of the feasibility study (FS) and the Proposed Plan, including Public Comment Period, Public Meeting, Meeting Transcript and Responsiveness Summary. NCP 40 C.F.R. 300.435(c)(2)(ii) (B)-(F)

When the Amended Record of Decision is available, the lead agency must publish a notice of availability of the amended ROD in a major local newspaper and make the amended ROD and supporting information available for public inspection and copying in the administrative record and information repository prior to commencement of the remedial action affected by the amendment. NCP 40 C.F.R. 300.435(c)(2)(ii) (G) and (H)

Remedial Design:

Upon completion of the final engineering design, the lead agency must issue a fact sheet and provide a public briefing, as appropriate, prior to beginning remedial action. NCP 40 C.F.R. 300.435(c)(3)

Appendix B: The Superfund Process - Community Involvement Activities at NPL Sites



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Portland Harbor Superfund Site - Community Involvement Plan - February 2002

Appendix C: Project Overview

The city of Portland is located in Multnomah County, Oregon. Approximately 1.3 million people, about 20% of the state's population, live in Portland or nearby communities.

Historically, the economy of Portland was based around the harvest of fish, timber, minerals, and agricultural products. The principal industries in the Portland area are now manufacturing, tourism, transportation, and wholesale and retail trade.

The Willamette River runs through the middle of Portland, flowing north through the city to where it joins the Columbia River. The shoreline has steep banks, many covered with riprap or constructed bulkheads. Many piers and wharves extend out over the water. The River has been dredged to accommodate shipping for many decades. Channel depths currently range from 10 to 140 feet, with an average depth of 45 feet. As it runs through the Portland metro area, the Willamette River is deep, slow moving, and the water level rises and falls from tidal influence.

Portland Harbor is one of the busiest seaports on the Pacific Coast. Since the mid-1800s, when the first wharves were constructed to support international and intercoastal steamship service, the shoreline of the river near Portland has been modified to accommodate urban development and a growing shipping industry. In 1968, the first river dredging was conducted and, since that time, the Willamette River has been continually dredged for navigation and maintenance. The Port of Portland is a hub for major importing and exporting of goods to the region. Some historical and current industrial operations include:

- marine construction
- bulk petroleum product storage and handling
- construction material manufacturing
- oil fire fighting training activities
- oil gasification plant operations
- pesticide/herbicide manufacturing
- wood treating operations
- agricultural chemical production
- battery processing
- liquid natural gas plant operations
- hazardous waste storage
- chlorine production
- ship loading and unloading;
- ship maintenance, repair and refueling
- rail car manufacturing
- metal scrapping and recycling

There are many non-commercial uses of the Willamette River and Portland Harbor which benefit the region, such as recreation and wildlife. Many kinds of fish and wildlife live in or migrate through Portland Harbor. Several species of salmon are listed under the Endangered Species Act. Fish-eating birds, migratory waterfowl, and raptors are seen in the lower Willamette River during various times of the year. Spring Chinook draw anglers for sport fishing. Tribal fishing and gathering is a key activity. Swimming and boating are other uses that bring people into contact with Portland Harbor.

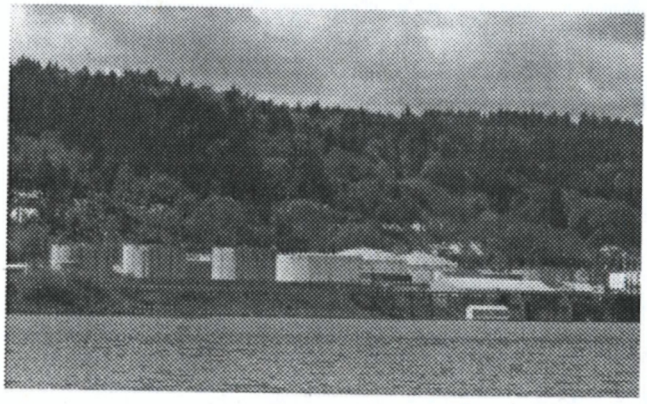
The Willamette River was used historically for transportation, water supply, and waste disposal. Disposal of raw sewage and waste created water quality unsafe for human use and toxic for wildlife by the the 1920's. In the 1950s, the City of Portland began working to minimize the discharge of raw sewage into the River. Other cleanup activities in Portland Harbor and surrounding portions of the Willamette River have been ongoing since the early 1970s, when controls were placed on industrial discharges and municipal waste disposal facilities were constructed throughout the Willamette Basin.

Appendix D: History of Cleanup Activity Along the Harbor

What Cleanup Work Has Already Occurred?

Beginning in the late 1980s, DEQ's cleanup program began working with parties associated with known releases to the Harbor, providing oversight of investigation and cleanup activities. In cases where responsible parties were no longer viable, DEQ has used an Orphan Site Account to fund the necessary response measures as authorized under the Oregon Environmental Cleanup Law. The McCormick and Baxter and Gould sites were listed on the EPA National Priorities List and DEQ worked in cooperation with EPA to complete investigation and cleanup. Over 40 facilities within Portland Harbor have initiated cooperative relationships with DEQ under the Voluntary Cleanup Program. A list of the sites, their environmental issues and stage of investigation or cleanup is included in Appendix G.

An EPA-funded study of sediments in Portland Harbor, conducted in May 1997, found elevated levels of PCBs, pesticides, herbicides, metals, dioxins, arsenic, chromium, and petroleum-related hydrocarbons. Sediment plays a key role in the river ecosystem, serving as the starting point for its food chain (fish feed on the microorganisms that live in sediment), and the contamination can have impacts on both marine life and human health. The levels of contamination found in the sediments led EPA to place the Portland Harbor site on the National Priorities List for cleanup under federal law.



Appendix E: Summary of Pre-NPL Listing Public Involvement by DEQ

From the end of 1998 to the end of 2000, DEQ staff conducted 25 community interviews and attended dozens of presentations, conferences and meetings. Through this work, DEQ identified key community stakeholders, media contacts, and developed a mailing list of over 900 interested parties. A key message heard from the community during that time was the need to be kept regularly informed on progress at Portland Harbor with material that translates highly technical information into language that can be understood by a broad audience.

From late 1998 to June 1999, DEQ focused on providing information to the public on harbor-wide cleanup activities, and the State's efforts to keep the harbor cleanup under state lead. Public involvement activities took many forms, in order to reach a wide range of stakeholders. Activities included:

- Over 50 presentations, meetings, and opportunities for dialogue with environmental and public interest groups, business owners, neighborhood associations, and river users in which the state's cleanup approach, including differences between the state approach and Superfund, were described.
- Development of information materials, including fact sheets and question-and-answer papers.
- A public comment period on the draft Portland Harbor Sediment Management Plan (PHSMP), outlining the state approach to harbor cleanup, in which DEQ asked for input on the outlined approach and addressed public concerns through preparation of a responsiveness summary.
- Open house at which DEQ's project manager and technical resources, EPA, U.S. Army Corps of Engineers, City of Portland, potentially responsible parties, and environmental interest group representatives, were available to answer questions, provide information on the cleanup, and respond to public issues and concerns.

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- Public meetings sponsored by Northwest Environmental Advocates, funded by a DEQ technical assistance grant, at which input was received about the state's approach versus Superfund, and subsequently addressed in the final PHSMP.
- Regularly updated web site with project information materials available for review and downloading.

Issues that were heard throughout the public involvement activities are summarized below,

- How will coordination between other programs and agencies, such as water quality efforts, occur? How will laws applying to contaminated sediments and proposed plans for dredging be coordinated?
- Will other parts of the Willamette River that need attention be ignored during cleanup of this relatively small stretch of the waterway?
- Will cleaning up of existing contamination be done in parallel with an effort to ensure future contamination does not occur?
- How will people know that fish in Portland Harbor are safe to eat?
- Will the sites along the Harbor be posted?

The following activities were conducted by DEQ from June 1999 through March 2000:

- Solicited stakeholder input during development of RI/FS work plan by forming Technical Exchange Workgroup and Stakeholder Advisory Group with representatives of natural resource agencies, tribal governments, environmental groups, community and neighborhood interests, potential responsible parties, and other state and federal agencies. The two groups met a total of 17 times during a 5-month period. DEQ prepared comment responses to input received and issues raised during plan development.
- Updated fact sheet describing the project status and mailed to interested parties mailing list.
- Conducted 25 interviews with a cross section of community representatives, including environmental and public interest groups, business owners, river users, neighborhood residents, local government, and ethnic populations.
- Regularly updated the Internet web site with project information materials available for review and downloading.
- Involved in over 15 additional meeting, presentations or activities that provided the community information on the Portland Harbor project.

Community Interviews

As suggested in EPA's guidance for community relations at Superfund sites, between September and November 1999, DEQ conducted 25 interviews with a cross section of community representatives, including environmental and public interest groups, business owners, river users, neighborhood residents, local government, and ethnic populations.

Interviewees were selected to ensure a broad representation of potentially interested or affected parties. Many of them were aware of cleanup activities ongoing in Portland Harbor, specifically the McCormick and Baxter site, but there was a wide range of awareness about other cleanup activities, risks to human health and the environment, and the difference between a federally-led versus state-led cleanup process. The purpose of these interviews was to identify key community concerns, level of understanding about cleanup activities in Portland Harbor, and solicit suggestions for how to involve the public in the cleanup process.

What We Heard From the Public

Understanding of Portland Harbor – Most interviewees were aware of pollution and contamination problems in the Willamette River, but there were varying levels of understanding about the extent of the problem, what is being done about it, and how it affects the general public. Most information received about Portland Harbor has been through the media or from neighbors or other river users. Some interviewees had seen deformed fish, a reduction in the fish population over time, or sewage overflows. Generally, the public wants to see a cleaned up river, but is not familiar with the technical complexity of the cleanup process.

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Environmental Health Risks – The Willamette River and other nearby water bodies are used for fishing, swimming and boating. Thus, a number of interviewees raised health risk-related issues and questioned whether these activities should continue. It has been noticed that even when signs are posted warning of health risks, many people ignore the notices and continue to use the water. For example, some fishermen believe that simply cleaning the fish will remove any contamination. Another health risk concern was the transportation of contaminated sediments through residential areas once cleanup begins.

Economic Development – The economy of the region is an important issue for the City of Portland and businesses along Portland Harbor. Small business owners also stressed the need to ensure the local economy remains strong. Significant concerns were raised by some of the interviewees who felt there was a stigma associated with a Superfund listing or any designated cleanup site. Some interviewees felt there should be a balance between the needs of the industries and jobs along the river with the need of the greater community to have a clean River. Other interviewees felt that cleanup of the river should take precedence over any economic concerns.

Other Environmental Issues – The public is aware of other environmental issues in the Portland area and had questions as to how water quality overall was being coordinated. Concerns were also raised about suspended contaminated sediments moving downstream following removal actions. Potential recontamination from upland properties was raised as well as the impact on fish and wildlife in Portland Harbor and the surrounding area. People wanted assurance that resources would be protected or restored. Also, many were aware of proposed plans to dredge portions of Portland Harbor and questioned what kind of impact would occur on the contaminated sediments if those plans moved forward. The City of Portland has been working extensively over the last several years on the outflow of sewage into the river. This project has raised public awareness of the overall water quality of the river and is a more visible concern for most citizens than sediment contamination in Portland Harbor.

Who will lead the Cleanup? – A majority of the interviewees agreed on the point of holding businesses responsible for the contamination they caused. Some government agencies are concerned about paying for cleanup in Portland Harbor and having to pass those costs onto ratepayers. This led some to encourage a collaborative approach with businesses along Portland Harbor to ensure cooperation and any necessary cleanup action is completed. However, others were concerned about the enforcement needed to ensure responsible parties were accountable and paid for cleanup activities.

Enforcement – Few interviewees understood the differences between a federal and state cleanup. Some of those who were not familiar with either the EPA or DEQ approach to cleanup, expressed an opinion based on their personal beliefs about the role of federal and state levels of government. Those in favor of a federally led cleanup felt that there would be less business influence over the process, more funding and resources available, greater protection of natural resources, and a greater regulatory hammer. Others felt that a state-led cleanup would give more local control over the process and ensure that cleanup happens more efficiently, while offering the same level of regulatory authority and cleanup standards. In general, interviewees were in favor of a state-led approach as long as DEQ can accomplish the cleanup in a manner that protects human health and the environment.

From April 2000 to December 2000, DEQ continued its public involvement efforts by providing updated fact sheets, updating the web page and attending over 15 meetings with various stakeholders in the community.

Appendix F: Acronyms

AET-Apparent Effects Thresholds
AML-Arc Macro Language
ANOVA-Analysis of Variance
ARARs-Applicable or relevant and appropriate requirements
ARL-Acceptable Risk Level
ASTs-Aboveground Storage Tanks

B-COCs-Bioaccumulative chemicals of concern
BMPs-Best Management Practices
BRI-Benthic Response Index
BSAF-Biota-Sediment Accumulation Function
BTs-Bioaccumulation Triggers

CAS-Chemical Abstract Service
CBRs-Critical Body Residues
CERCLA-Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS-Comprehensive Environmental Response, Compensation and Liability Information System
CFR-Code of Federal Regulations
COC-Contaminants of Concern
COE-Corps of Engineers
COI-Contaminants of Interest
COPC-Contaminants of Potential Concern
CPEC-Contaminants of Potential Ecological Concern
CPFs-Cancer Potency Factors
CSF-Cancer Slope Factor
CSOs-Combined Sewer Outflows
CWA-Clean Water Act

DDD-Metabolite of DDT
DDE-Metabolite of DDT
DDT-Dichlorodiphenyltrichloroethane
DEQ-Oregon Department of Environmental Quality
DMEF-Dredged Material Evaluation Framework
DNA-Deoxyribonucleic Acid
DNAPL-Dense Non-Aqueous Phase Liquids
DO-Dissolved Oxygen
DQO-Data Quality Objective
DSL-Oregon Division of State Lands
DWR-Department of Water Resources

ECSI-Environmental Cleanup Site Information Database
EIS-Environmental Impact Statement
EPA-Environmental Protection Agency
ERED-Environmental Residue-Effects Database
ESA-Endangered Species Act
ESU-Evolutionary Significant Units

FDA-Food and Drug Administration

GIS-Geographic Information System

HEAST-Health Effects Assessment Summary Tables
HI-Hazard Index
HPAH-High Molecular Weight Polycyclic Aromatic Hydrocarbons
HW-Hazardous Waste

IMMP-Inspection, Maintenance, and Monitoring Plan
ITI-Infaunal Trophic Index
IRIS-Integrated Risk Information System
ITIS-Integrated Taxonomic Information System
ITM-Inland Testing Manual

LDR-Land Disposal Restrictions
LNAPL-Light Nonaqueous Phase Liquids
LOAEL-Lowest Observed Adverse Effect Level
LPAHs-Low Molecular Weight Polycyclic Aromatic Hydrocarbons
LSD-Least Significant Difference
LUST-Leaking Underground Storage Tank

MCLGs-Maximum Contaminant Level Goals
MCLs-Maximum Contaminant Levels

NAPL-Non-aqueous Phase Liquids
NCP-National Contingency Plan
NFA-No Further Action
NMFS-National Marine Fisheries Service
NOAA-National Oceanic and Atmospheric Administration
NOAEL-No Observed Adverse Effect Level
NODC-National Oceanographic Data Center
NPDES-Natural Pollution Discharge Elimination System
NPL-National Priorities List

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NRDA-Natural Resource Damage Assessment
NWEA-Northwest Environmental Advocates

OAR-Oregon Administrative Rules
OCF-On-Site Containment Facility
ODFW-Oregon Department of Fish and Wildlife
ODOT-Oregon Department of Transportation
ODWR-Oregon Department of Water Resources
ORS-Oregon Revised Statutes
OSA-Orphan Site Account

PA-Preliminary Assessment
PAH-Polycyclic Aromatic Hydrocarbons
PCB-Polychlorinated Biphenyl
PCDD-Polychlorinated Dibenzodioxin
PCDF-Polychlorinated Dibenzofuran
PCP-Pentachlorophenol
PDC-Portland Development Commission
PHSMP-Portland Harbor Sediment Management Plan
PPA-Prospective Purchaser Agreement
PRP-Potentially Responsible Party
PSEP-Puget Sound Estuarine Protocols
PSY-Portland Ship Repair Yard

QA/QC-Quality Assurance/Quality Control
OSA-Orphan Site Account

RAGS-Risk Assessment Guidance for Superfund
RAO-Remedial Action Objectives
RCRA-Resource Conservation and Recovery Act
RD/RA-Remedial Design/Remedial Action
RDT-Regional Decision Team
RfDs-Reference Doses
RI/FS-Remedial Investigation/Feasibility Study
RM-River Mile
RME-Reasonable Maximum Exposure
ROD-Record of Decision
RP-Responsible Party

SAM-Sediment Assessment Methodology
SAP-Sampling and Analysis Plans
SIMI-Similarity Index
SMP-Sediment Management Plan
SPI-Sediment Profile Imaging
SQG-Sediment Quality Guideline

TAG-Technical Assistance Grant
TBT-*Tributyltin tin*
TCA-Trichloroethane
TEC-Trichloroethylene
TCLP-Toxicity Characteristic Leaching Procedure
TEF-Technical Evaluation Framework
TIE-Toxicity Identification Evaluation
TMDL-Total Maximum Daily Load
TOC-Total Organic Compounds
TPH-Total Petroleum Hydrocarbons
TPL-Trust for Public Lands
TRV-Toxicity Reference Value
TSC-Tissue Screening Concentrations
TSS-Total Suspended Solids
TTL-Target Tissue Level

USACE-U.S. Army Corps of Engineers
USFWS-U.S. Fish and Wildlife Service
USGS-U.S. Geological Survey
UST-Underground Storage Tank

VCP-Voluntary Cleanup Program
VOC-Volatile Organics

WDOH-Washington State Department of Health
WRDA-Water Resources Development Act

Appendix G: Glossary of Terms

Applicable or relevant and appropriate requirements (ARARs): The federal Superfund law (CERCLA) specifies that remedial actions must comply with requirements or standards under federal or more stringent state environmental laws that are applicable or relevant and appropriate to the hazardous substances or particular circumstances of a site. Applicable requirements are those protection requirements that specifically address a hazardous substance at a CERCLA site. Relevant and appropriate requirements are those protection requirements that, while not applicable to a hazardous substance, address problems sufficiently similar to those encountered at a CERCLA site to make them useful. (52 FR 32496, August 27, 1987)

Assessment endpoint: An explicit expression of a specific ecological receptor and an associated function or quality that is to be maintained or protected. Assessment endpoints represent ecological receptors directly or as their surrogates for the purposes of an ecological risk assessment. (OAR 340-122-115(7))

Background level: Concentration of hazardous substances, if any, existing in the environment in the location of the facility before the occurrence of any past or present release or releases. (OAR 340-122-115(8))

Benthic infaunal communities: An assemblage of plants, animals, and other organisms that live in or on the sediment and interact with one another, forming a distinct living system with its own composition, structure, environmental relationships, development, and function.

Best Management Practices (BMPs): Methods that have been determined to be the most effective, practical means of preventing or reducing pollution from non-point sources.

Bioaccumulation: The ratio of the concentration of a chemical in an organism to the concentration of that chemical in the ambient medium (usually water).

Bioconcentration: The ratio of the concentration of a chemical in an organism to the concentration of that chemical in the organism's food or in the water it ingests.

Biota-Sediment Accumulation Function (BSAF): The relationship between tissue concentrations and sediment concentrations derived using tissue and sediment chemistry data.

Bioassays: Various biological tests used to determine the toxicity and/or bioaccumulation potential of a hazardous substance.

Brownfields: Abandoned, idled, or underused industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination.

Carcinogens: Any substance or agent that produces or tends to produce cancer in humans. (OAR 340-122-115(10))

Chemical of interest: This is a hazardous substance that has been identified, without considering toxicity (i.e., by using frequency of detection or comparison to background), as having the potential to pose a risk to human health or the environment.

Cleanup level: Residual concentration of a hazardous substance that is determined to be protective of public health, safety and welfare, and the environment under specified exposure conditions. (OAR 340-122-115(11))

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): A federal act (Public Law 96-510; December 11, 1980) that provides for liability, compensation, cleanup, and emergency response for hazardous substances released into the environment and the cleanup of inactive waste disposal sites.

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Conceptual model: A written description and visual representation of predicted relationships between receptors (both human and ecological) and the hazardous substances to which they may be exposed.

Consent orders: Legal vehicle to ensure cleanup move forwards at a contaminated site; typically contains stipulated penalties for non-performance by the liable person and cannot be unilaterally terminated.

Contaminant of concern: A hazardous substance that is present in such concentrations that the contaminant poses a threat or a potentially unacceptable risk to public health, safety or welfare, or the environment. (OAR 340-122-115(15))

Data Quality Objectives (DQOs): Qualitative and quantitative statements of the overall level of uncertainty that a decision-maker will accept in results or decisions based on environmental data. These provide the statistical framework for planning and managing environmental data operations consistent with user's needs.

Endangered Species Act (ESA): Federal statute enacted in 1973 to conserve species and ecosystems. Species facing possible extinction are listed as "threatened" or "endangered," or as "candidate" species for such listings. When such a listing is made, recovery and conservation plans are draw up to ensure the protection of the species and its habitat.

Environmental Cleanup Law: Oregon's revised cleanup law, enacted in 1995, which expanded DEQ's authority related to identification, investigation, and cleanup of hazardous substances.

Facility: Any site or area where a hazardous substance has been deposited, stored, disposed of, placed, or otherwise come to be located, and where a release has occurred or whether there is a threat of a release. (OAR 340-122-115(26))

Feasibility study: Provides the decision-maker with an assessment of remedial alternatives, including their relative strengths and weaknesses, and the trade-offs in selecting one alternative over another. Conducted if the risk assessment performed during the remedial investigation establishes the presence of unacceptable risks.

Harbor-wide assessment: Remedial and other investigations conducted in the lower Willamette River (River Miles 0.0 to 26.5), inclusive of Portland Harbor (River Miles 3.5 to 9.5), and possibly extending into the Columbia River near its confluence with the Willamette.

Hazard Index: A number equal to the sum of the hazard quotients attributable to systemic toxicants with similar toxic endpoints, where hazard quotient is the ratio of the applied dose to the reference dose and the reference dose is typically the highest dose causing no adverse effects on survival, growth or reproduction in human populations.

Hazard Ranking System: The principal mechanism EPA uses to place uncontrolled waste sites on the National Priorities List. Numerically based screening system that uses information from initial, limited investigations to assess the relative potential of sites to pose a threat to human health or the environment.

Hazardous waste: Solid wastes that have been determined to be a hazardous waste because they possess at least one of four characteristics (ignitability, corrosivity, reactivity, or toxicity), appear on special EPA lists, or are defined as hazardous by Oregon Rule.

Hot spots: For groundwater or surface water, hazardous substances having a significant adverse effect on beneficial uses of water or waters to which the hazardous substance would be reasonably likely to migrate and for which treatment is reasonably likely to restore or protect such beneficial uses within

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a reasonable time; for media other than water (including sediments), defined by the presence of high concentrations of hazardous substances that are likely to migrate and create a hot spot of contamination elsewhere, or by the presence of hazardous substances that are not reliably confinable. (OAR 340-122-115(31))

Institutional control: Legal or administrative tool or action taken to reduce the potential for exposure to hazardous substances, which may include, but are not limited to, use restrictions, environmental monitoring requirements, and site access and security measures. (OAR 340-122-115(32))

Joint and several liability: Under CERCLA, this legal concept relates to the liability for Superfund site cleanup and other costs on the part of more than one potentially responsible party (i.e., if there were several owners or users of a site that became contaminated over the years, they could all be considered potentially liable for cleaning up the site).

National Contingency Plan (NCP): A set of regulations that describe the organizational structure and procedures for preparing for and responding to discharges of oil and releases of hazardous substances, pollutants, and contaminants.

National Priorities List (NPL): A published list of hazardous waste sites in the country that are eligible for extensive, long-term cleanup under the Superfund program.

No further action (NFA): A determination by DEQ, following a preliminary assessment, a risk assessment or the completion of remedial action, that no unacceptable risks remain to human health or to the environment.

Noncarcinogen: hazardous substance with adverse health effects on humans other than cancer. (OAR 340-122-115(36))

Orphan Site Account (OSA): Account established to be used to fund investigation and remedial actions where liable parties are unknown, unwilling or unable to participate. DEQ uses litigation to recover Orphan Site Account funds from recalcitrant responsible parties.

Preliminary assessment (PA): An assessment conducted for the purpose of determining whether additional investigation, removal, remedial action, or related engineering or institutional controls are needed to assure protection of public health, safety and welfare, and the environment. (OAR 340-122-072).

Record of decision (ROD): A document that details the factors that shaped the decision to select a specific remedial alternative over others. (OAR 340-122-110)

Release: Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into the environment including the abandonment or discarding of barrels, containers and other closed receptacles containing any hazardous substance, or any threat thereof, but excluding exposures within a workplace, emissions from the engine exhaust, nuclear material and the normal application of fertilizer.

Remedial Alternative: An action considered in the feasibility study intended to reduce or eliminate unacceptable risks to human health and the environment at a site. A range of remedial alternatives are considered in the feasibility study while the selection of a specific remedial alternative over others is documented in the record of decision.

Remedial action: The selected alternative that is documented in the record of decision.

Remedial investigation (RI): Actions undertaken to characterize the full nature and extent of contamination, including characterization of

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hazardous substances, characterization of the facility, performance of human health and ecological risk assessments, and collection and evaluation of information relevant to the identification of hot spots of contamination.

Removal action: actions necessary to prevent, minimize, or mitigate damage to the public health, safety, and welfare, and the environment (OAR 340-122-070). Generally taken in response to an imminent threat, it may be conducted at any point in the site response process, and may include source control measures, removal of highly contaminated material, and/or posting warning signs or constructing fences around a contaminated site.

Risk: Probability that a hazardous substance, when released into the environment, will cause adverse effects in exposed humans or ecological receptors.

Risk assessment: The process of evaluating whether a hazardous substance poses a potential threat, either currently or in a reasonably likely future, to human health and the environment.

Sediment: Soils, sand, organic matter, or minerals that wash from land or accumulate on the bottom of a water body

Sediment Quality Guidelines (SQGs): Numeric sediment concentrations above which further biological testing and/or a feasibility study may be warranted and below which suspected sediment contaminants are unlikely to pose an unacceptable risk.

Site assessment: Investigation to assess priority for follow-up, which may be based on the adequacy of data linking a site to a release or on the presence of potentially impacted receptors.

Site discovery: Process of identifying and documenting a release of hazardous substance to the environment.

Site-specific assessment: A remedial investigation conducted at a site or facility under the jurisdiction of Oregon's environmental cleanup statutes and rules.

Subsistence fishing: Persons who obtain a significant portion, more than the general or recreational fish-eating population, of their dietary protein from the consumption of self-caught fish of various species.

Tissue Screening Concentrations (TSCs): Contaminant concentration in fish tissue below which adverse effects are not expected for 95% of the fish species.

Target Tissue Levels (TTLs): A tissue concentration in food items (e.g., fish or shellfish) which does not pose an unacceptable risk to birds, mammals, or humans that consume these food items.

Portland Harbor: The six-mile (River Mile 3.5 to 9.5) industrialized segment of the Willamette River located between Swan and Sauvie Islands.

Voluntary cleanup agreement: Legal vehicle to ensure cleanup moves forward at a contaminated site; entered into voluntarily by the site, enforceable by administrative penalties or by court action.

Willamette River: The 187-mile long river that flows northward in northwestern Oregon between the coast and Cascade Mountains.

Appendix H: Additional Information Resources

Joint EPA/DEQ Fact Sheets about Portland Harbor (EPA web page or on request):

January 2002
October 2001
May 2001
December 2000

Reports of Interest:

DEQ Status Report on Upland Cleanup Sites (DEQ web page or on request)
Portland Harbor Sediment Investigation Report "Weston Report"

Agency web pages about Portland Harbor:

EPA: http://yosemite.epa.gov/r10/cleanup.nsf/sites/ptldharbor
You can also type: www.epa.gov/r10earth/, click on Index, then select P and Portland Harbor.
DEQ: www.deq.state.or.us/nwr/ph/

Technical Assistance Grantee web page on Portland Harbor*:

*Views expressed on this web site many differ from EPA or DEQ positions.

Willamette Riverkeeper: www.willamette-riverkeeper.org

Pre-NPL listing information available from DEQ:

List of groups and organizations
List of public meetings
DEQ Fact Sheets
Factsheet #9 May 2000
Factsheet #8 March 2000
Factsheet #7 September 1999
Factsheet #6 June 1999
Factsheet #5 April 1999
Factsheet #4 March 1999
Factsheet #3 February 1999
Factsheet #2 December 1998
Factsheet #1 December 1998